

PSY 312: Learning, Memory & Cognition
Call#: 40184-3
Spring Quarter 2007

Instructor: Dr. Dennis M. Shaffer
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Office Hours: By appointment only.

Class Time: TTh 3:15-5:20pm
Class Location: Ovalwood 253
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Required Textbook:

- Matlin, M. (2005). *Cognition* (6th Ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Course Overview:

This course will provide each student with a general understanding of issues related to cognitive psychology by combining in-class lectures, reading assignments in the textbook, in-class discussions, and active learning exercises. This course should provide students with a basic understanding of the relationship between empirical evidence and the theoretical explanations of cognitive processes. In addition, students should gain an appreciation of the practical applications of theories and research in cognitive psychology.

Course Mechanics:

In order to accomplish the above goals and to perform well in this class, students should do (at least) the following things:

- (1) Attend class. Coming to class at every meeting is critical in a course of this nature. Although I do not count attendance toward your grade, missing class will adversely affect your grade. If you do not come to class you remain responsible for all material covered in class and for any announcements;
- (2) Carefully study the textbook and other readings. Although cognitive psychology is an exceptionally rewarding subject to study, the material covers a wide range of topics that for most students are very challenging including the psychophysics of how we perceive objects, neural areas that subserve different cognitive functions, and conditional and probabilistic reasoning. When studying the textbook and additional readings, please write down questions about material that you do not understand, or comments about what you would like to know more about. **Don't be afraid to ask questions and make comments!** If you don't understand something, it is very likely others in the class are having similar problems. If you find something interesting, it is almost certainly of interest to others as well;
- (3) Conscientiously execute the oral and written assignments (see below), and
- (4) Actively participate in class meetings. You will be expected to fully participate in scheduled class sessions. This will require you to carefully study the textbook and other readings assigned for that day. In general, classes are a mixture of lecture, demonstrations, video and discussion. Lectures cannot possibly cover everything contained in the textbook. Therefore, some of the material in the text will not be dealt with in class. This does not mean that the material is unimportant--only that there is not enough time to cover it in class. Conversely, there will be times that I will discuss material in the lecture that is not covered in the text. In other words, you should pay attention to both the material in the text and in the lecture when studying for exams.

Evaluation:

Points

• Exams

(100 points x 3 exams)

300

- - Exams will cover all the material since the last exam (or in the case of the first exam, since the first day of class). The exams will be a mix of brief answer, essay, and multiple choice.

• Critical Questions

(12 points x 11 Readings)

132

- - Each student must come up with at least 1 comment and 2 critical questions for each of the “**Seminar readings**” that could lead off a discussion. The comment should describe one thing that you liked about the article or thought the authors did well. The critical questions should be “bigger picture” types of theoretically-based questions. They can also be ideas for the way the study should have been done (if there is a valid reason for why you think it was not done correctly), or “fatal flaws” to the study if you discover them. They can also be ideas for new studies that make sense given the results and conclusions from the articles we read. **In general, I want your questions/comments to get at theoretically important questions, rather than to nitpick at more minor types of things (e.g., “More participants should have been used,” “The study should have included women or men,” “This should be done in the laboratory/real world instead,” or “I don’t like the apparatus that was used.”) unless these things really bear on the legitimacy of the conclusions or inferences of the work. If you believe that they bear on the legitimacy of the conclusions or inferences, you must tell me why.**
- In one case, the readings are magazine book chapters and a magazine article that are not in the typical format of a scientific article. In these cases, the questions or comments should still have relevance to the topics discussed.
- Most of the time, a one-sentence question will not satisfy this requirement. You need to tell me explicitly how and why you think this question or comment is important to consider.
- Remember: Two questions and one comment must be prepared for **EACH ARTICLE**. This means that for most classes you must come up with 2 questions and 1 comment, because there is typically only 1 article for a given class (this does not occur all of the time, but it does most of the time). If there are 2 articles for a given class, 2 questions and 1 comment must come from **EACH ARTICLE (i.e., a total of 4 questions and 2 comments)**.
Students should list the reference of the article first (so I know for which article you are writing your comment or question, and then give the comment or questions underneath it.

- The comments/critical questions must be handed in at the beginning of the class period, regardless of when we are discussing the article(s) for that day.
- I want everyone to read the articles assigned so that all students participate for all the readings. Also, questions about the readings **WILL** appear on the exams.

Total 432

Grading:

Mastery of the lecture and text materials will be evaluated using 3 in-class examinations and 11 sets of comments and critical questions concerning each of the seminar readings. Final grades will be computed based on your total points divided by the total points possible.

- A 94% - 100%
- A- 90% - 93%
- B+ 87% - 89%
- B 84% - 86%
- B- 80% - 83%
- C+ 77% - 79%
- C 74% - 76%
- C- 70% - 73%
- D+ 67% - 69%
- D 60% - 66%
- E Below 60%

Make-up Exams

Exams can be made up only if the student has a medical or family emergency. Written evidence of the emergency must be provided either before the exam or as soon as possible after the exam. The instructor reserves the right to decide on the adequacy of excuses. Make-up exams will be either oral or all essay. A special test session will be used for giving all make-up exams. *See me at once* if you miss an exam or when you anticipate missing an exam. You must see me, in person, in my office for this.

Academic Dishonesty:

Cheating on exams and/or quizzes, or plagiarizing someone else’s work will not be tolerated. Plagiarism is when you cite or discuss another person’s work as your own. If you would like to use someone else’s ideas, summarize their work **USING YOUR OWN WORDS** and then **CITE THEIR WORK** using the accepted American Psychological Association’s (APA) Guidelines. If you are caught being academically dishonest, I will report the incident to Ohio State and you will be subject to punishment from the university that includes, but is not limited to receiving a failing grade for that exam. If you are still not sure what is considered academically dishonest, please see me.

Conduct:

University college students, like all members of the OSU community, are expected to conduct themselves maturely. A student who infringes on the rights of others or who in any way disturbs orderly academic functions may be subject to probation, suspension, or dismissal. Physical or verbal abuse of any person, theft of, or damage to University property, unauthorized entry of University facilities, disruption of teaching or administration, misuse of University documents, or knowingly furnishing false information to the University is grounds for such disciplinary action.

I also expect that: Students will not talk when the instructor is lecturing so it disrupts the concentration of other students or the instructor, and that cell phones will be turned off or turned to vibrate while class is in session.

Students with Disabilities:

Any student who feels he or she may need an accommodation based on the impact of a disability should contact me privately to discuss his or her specific needs. Please also contact Michelle McLane at the Office for Disability Services at (419) 755-4304. You may also visit her at C100E Conard Learning Center in order to coordinate reasonable accommodations for students with documented disabilities.

Special Requests:

1. Stop by my office and visit me sometime.
2. Ask at least one question in class during the semester.
3. Bring me a newspaper or magazine article, or a comic related to this class.

Class Schedule

This outline can only be an approximate guide; dates for particular lecture topics may change, and material may be added or deleted. However, the dates and material for the exams will be as listed unless changes are absolutely necessary. If changes affecting exams are made, they will be announced in class as soon as possible. Lecture dates in this outline are used to identify lecture topics to be covered on exams.

<u>Class Date:</u>	<u>Topic</u>	<u>Matlin Reading</u>
3/27 (Tues.)	.....Introduction to the Course	<i>None</i>
	.....Approaches to Cognitive Psychology: Story of the Seven Blind	Chapter 1 (pp. 1-10)
	.....Men & the Elephant	
3/29 (Thurs.)	.....Cognitive Neuroscience	Chapter 1 (pp. 13-21)
4/3 (Tues.)	.....Perceptual Processes	Chapter 2
4/5 (Thurs.)	.....Perceptual Processes	Chapter 2
Seminar Reading:		
Nicholls, M. E. R., Orr, C. A., Okubu, M., & Loftus, A. Satisfaction guaranteed: The effect of spatial biases on responses to Likert scales. <i>Psychological Science</i> , 17, 1027-1028.		
Seminar Reading:		
Lee, L., Frederick, S., & Ariely, D. (2006). Try it, you'll like it. <i>Psychological Science</i> , 17, 1054-1058.		
4/10 (Tues.)	.....Where Cognition Influences Perception: Naïve Beliefs in Baseball	
	.....Attention & Consciousness	Chapter 3
Seminar Reading:		
Shaffer, D. M., & McBeath, M. K. (in press). Naïve beliefs in baseball: Systematic distortion in perceived time of apex for fly balls. <i>Journal of Experimental Psychology: Learning, Memory & Cognition</i> .		
	.....Attention & Consciousness	Chapter 3
4/12 (Thurs.)	.....Attention and Consciousness	Chapter 3
Seminar Reading:		
Strayer, D. L., & Johnston, W. A. (2001). Driven to distraction: Dual-task studies of simulated driving and conversing on a cellular telephone. <i>Psychological Science</i> , 12, 462-466.		
	.....Inattentional Blindness	
4/17 (Tues.)	.....EXAM #1	
4/19 (Thurs.)	.....Memory: Sensory and Working Memory	Chapter 4
	.....Memory: Long-Term Memory	Chapter 5
4/24 (Tues.)	.....Memory: Long-Term Memory	Chapter 5
	.....Losses and Extraordinary Feats of Memory	<i>None</i>
	.....Memory Strategies and Metacognition.....	Chapter 6
4/26 (Thurs.)	.....Memory Applications: Eyewitness Memory	pp.159-164

.....Memory Applications: Repressed/False Memoriespp. 164-167

5/1 (Tues.) Memory Applications: Repressed/False Memories See Below

Seminar Reading:

Mazzoni, G., & Memon, A. (2003). Imagination can create false autobiographical memories. *Psychological Science, 14*, 186-188.

5/3 (Thurs.)**EXAM #2**

5/8 (Tues.)Language: Introduction and ComprehensionChapter 9

5/10 (Thurs.)Language: Speech Production and Signingpp. 332-342 &
See Below

Seminar Reading:

Petitto, L. A., & Marentette, P. F. (1991). Babbling in the manual mode: Evidence for the ontogeny of language. *Science, 251*, 1493-1496.

Seminar Reading:

Petitto, L. A., Zatorre, R. J., Gauna, K., Nikkelski, E. J., Dostie, D., & Evans, A. C. (2000). Speech-like cerebral activity in profoundly deaf people processing signed languages: Implications for the neural basis of human language. *Proceedings of the National Academy of Science, 97*, 13961-13966.

5/15 (Tues.)Language: Bilingualismpp. 350-358

.....Mental ImageryChapter 7

5/17 (Thurs.)Mental ImagerySee Below

Seminar Reading:

Roese, N. J., Fessel, F., Summerville, A., Kruger, J., & Dilich, M. A. (2006). The propensity effect: When foresight trumps hindsight. *Psychological Science, 17*, 305-310.

5/22 (Tues.)Thinking & Problem Solvingpp. 362-388

.....Deductive Reasoning & Decision MakingChapter 12

5/24 (Thurs.) Open date—One of the Thursday classes in this course after Exam #2 will be cancelled. It may or not be on this day. If it is not on this day, we will move one of the lectures to this day

5/29 (Tues.)Deductive Reasoning & Decision MakingChapter 12

Seminar Reading:

Casscells, W., Schoenberger, A., & Graboys, T. B. (1978, November 2). Interpretation of clinical laboratory results. *New England Journal of Medicine, 299*, 999-1001.

5/31 (Thurs.)Probabilistic ReasoningSee Below

Seminar Reading:

Bonnefon, J-F., & Villejoubert, G. (2006). Tactful or Doubtful? Expectations of politeness explain the severity bias in the interpretation of probability phrases. *Psychological Science*, 17, 747-751.

Seminar Readings:

Lewis, M. (2003). How to find a ballplayer. In *Moneyball: The art of winning an unfair game* (pp. 14 - 42). New York: W. W. Norton & Company.

Lewis, M. (2003). The science of winning an unfair game. In *Moneyball: The art of winning an unfair game* (pp. 119-137). New York: W. W. Norton & Company.

Lewis, M. (2003). The Jeremy Brown blue plate special. In *Moneyball: The art of winning an unfair game* (pp. 97-118). New York: W. W. Norton & Company.

Lewis, M. (2004, March 4). Out of their tree. *Sports Illustrated*, 66-74.

JUNE 6..... TUESDAY, 3-4:48--FINAL EXAM--EXAM #3

Readings

1. Nicholls, M. E. R., Orr, C. A., Okubu, M., & Loftus, A. Satisfaction guaranteed: The effect of spatial biases on responses to Likert scales. *Psychological Science*, *17*, 1027-1028.
2. Lee, L., Frederick, S., & Ariely, D. (2006). Try it, you'll like it. *Psychological Science*, *17*, 1054-1058.
3. Shaffer, D. M., & McBeath, M. K. (2005). Naïve beliefs in baseball: Systematic distortion in perceived time of apex for fly balls. *Journal of Experimental Psychology: Learning, Memory & Cognition*, *31*, 1492-1501.
4. Strayer, D. L., & Johnston, W. A. (2001). Driven to distraction: Dual-task studies of simulated driving and conversing on a cellular telephone. *Psychological Science*, *12*, 462-466.
5. Mazzoni, G., & Memon, A. (2003). Imagination can create false autobiographical memories. *Psychological Science*, *14*, 186-188.
6. Petitto, L. A., & Marentette, P. F. (1991). Babbling in the manual mode: Evidence for the ontogeny of language. *Science*, *251*, 1493-1496.
7. Petitto, L. A., Zatorre, R. J., Gauna, K., Nikkelski, E. J., Dostie, D., & Evans, A. C. (2000). Speech-like cerebral activity in profoundly deaf people processing signed languages: Implications for the neural basis of human language. *Proceedings of the National Academy of Science*, *97*, 13961-13966.
8. Roese, N. J., Fessel, F., Summerville, A., Kruger, J., & Dilich, M. A. (2006). The propensity effect: When foresight trumps hindsight. *Psychological Science*, *17*, 305-310.
9. Casscells, W., Schoenberger, A., & Graboys, T. B. (1978, November 2). Interpretation of clinical laboratory results. *New England Journal of Medicine*, *299*, 999-1001.
10. Bonnefon, J-F., & Villejoubert, G. (2006). Tactful or Doubtful? Expectations of politeness explain the severity bias in the interpretation of probability phrases. *Psychological Science*, *17*, 747-751.
11. Lewis, M. (2003). How to find a ballplayer. In *Moneyball: The art of winning an unfair game* (pp. 14 - 42). New York: W. W. Norton & Company.
Lewis, M. (2003). The science of winning an unfair game. In *Moneyball: The art of winning an unfair game* (pp. 119-137). New York: W. W. Norton & Company.
Lewis, M. (2003). The Jeremy Brown blue plate special. In *Moneyball: The art of winning an unfair game* (pp. 97-118). New York: W. W. Norton & Company.

Lewis, M. (2004, March 4). Out of their tree. *Sports Illustrated*, 66-74.